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(54) **A refrigerated oven**

(57) A refrigerated oven comprising a cooking chamber in which is provided a heating elements and a refrigeration unit chamber in which is provided a refrigeration unit. The refrigeration unit is fluidly connected to the cooking chamber. Both the heating element and the refrigeration unit are selectively operable to either cool or heat the cooking chamber to thereby cool or heat a

food item located therein. The refrigeration unit as preferably modular refrigeration unit that the slid into and out of the refrigeration unit chamber. Preferably, the refrigeration unit includes an evaporator that is thermally isolate is from a condenser. The condenser as preferably conductively coupled to a base supporting the elements of the modular refrigeration unit.

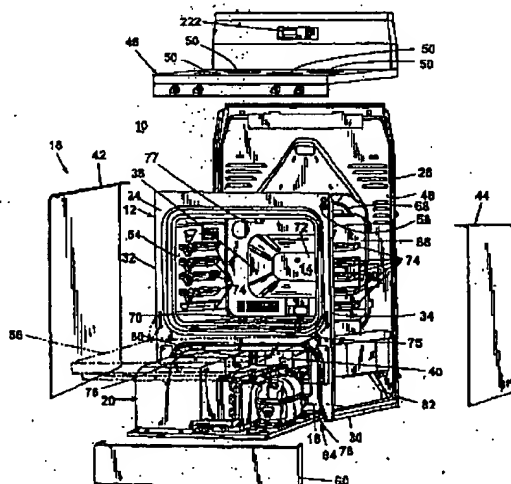


Fig. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 02 02 2260

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	DE 196 30 732 A (JUNO GROSKUECHEN GMBH) 5 February 1998 (1998-02-05) * abstract * * column 4, line 15 - line 43 * * claims 1-3 * * figure 1 *	1,2,7-9 3,4	F25D23/12 F25D19/00
Y	US 5 678 421 A (ELDERGILL IAN ET AL) 21 October 1997 (1997-10-21) * abstract * * column 4, line 10 - line 42 * * column 6, line 23 - line 27 * * figures 1,2,4,5,7 *	1,2,7-9	
A	DE 200 04 048 U (HFB KUECHENGERAETE GMBH) 10 August 2000 (2000-08-10) * abstract * * page 6, line 10-13 * * figure 1 *	1,4	
A	US 5 417 079 A (RUDICK ARTHUR G ET AL) 23 May 1995 (1995-05-23) * abstract * * figures 4-6 *	1-3,7	TECHNICAL FIELDS SEARCHED (Int.Cl.7) F25D A21B
A	US 6 014 868 A (TORIHATA TAKATOSI ET AL) 18 January 2000 (2000-01-18) * abstract * * figures 3-5 *	1,7	
A	US 2 366 284 A (NOFZINGER EARL E) 2 January 1945 (1945-01-02) * page 1, left-hand column, line 48 - line 55 *	7	
A,D	US 4 884 626 A (FILIPOWSKI MERLE M) 5 December 1989 (1989-12-05) --- -/--		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 23 April 2003	Examiner De Graaf, J.D.
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document			

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Office

EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	US 4 457 140 A (RASTELLI AGOSTINO A) 3 July 1984 (1984-07-03) -----		
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 23 April 2003	Examiner De Graaf, J.D.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons Δ : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 02 2260

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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23-04-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 19630732	A	05-02-1998	DE 19630732 A1	05-02-1998
US 5678421	A	21-10-1997	CA 2183793 A1	23-02-1997
DE 20004048	U	10-08-2000	DE 20004048 U1	10-08-2000
US 5417079	A	23-05-1995	US 5347827 A	20-09-1994
			AU 675799 B2	20-02-1997
			AU 4644993 A	31-01-1994
			CA 2138370 A1	20-01-1994
			CN 1092854 A	28-09-1994
			EP 0647109 A1	12-04-1995
			JP 7508828 T	28-09-1995
			MX 9303943 A1	29-04-1994
			US 5402654 A	04-04-1995
			WO 9401025 A1	20-01-1994
			US 5417081 A	23-05-1995
			ZA 9304735 A	24-01-1994
US 6014868	A	18-01-2000	NONE	
US 2366284	A	02-01-1945	NONE	
US 4884626	A	05-12-1989	NONE	
US 4457140	A	03-07-1984	NONE	

EPO FORM P4486

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82